



**To:** Zero Waste Advisory Commission

**From:** Bob Gedert, Director  
Austin Resource Recovery Department

**Date:** April 9, 2014

**Subject:** **Director's Report**

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### **REUSE DEFINITION**

*Reuse means using a discarded item for the same or similar function while preserving the embodied energy of its original form.* The City's Highest and Best Use Hierarchy, adopted as part of the Strategic Plan, lists reuse near the top of the hierarchy, directly after redesign and reduce, and before recycling.

Strategies the Department will explore and implement to support reuse include:

- Salvaging reusable items from the Department's bulk collection program prior to landfilling
- Encouraging and facilitating the growth and development of repair and reuse businesses and nonprofits, including:
  - Consignment stores, thrift shops and charitable drop-off centers
  - Building materials reuse centers and tool lending libraries
  - Used equipment stores and salvage yards
  - Repair, refurbishing and remanufacturing firms
  - Creative reuse centers and artists in residence programs
  - Local and regional online material exchanges
- Providing additional opportunities for reuse through the new reuse collection sites
- Promoting the use of durable, reusable products

Reuse is an important component in the City's Zero Waste strategy.

*Source: Austin Resource Recovery Master Plan, excerpts from Chapter 7*

### **BENEFICIAL REUSE DEFINITION**

ARR is focused on sustainable materials management, and helping divert materials to highest and best use, while understanding economic and technical challenges that face some materials. While the highest and best use of materials is desirable in all material categories, there are realities in the marketplace that require Austin to consider alternative markets for materials that provide a better economic outcome, but still manage the materials as a resource. Some of the markets fall into a category referred to as "*beneficial reuse*".

The state of Texas provides guidance on defining "*beneficial reuse*". Within the state's definition, there is more clarification required to articulate what products and processes qualify as beneficial reuse in a Zero Waste community that follows the Zero Waste International Alliance definition for diversion, which does not count non-valuable markets as legitimate diversion.

Beneficial reuse is: *When a recyclable material can be processed in a manner that segregates a commodity (glass, plastic, gypsum wallboard, etc.), incorporates some processing of that material (grinding, screening, crushing, etc.), that allows the material to meet a specification as a raw material or a product that will substitute for a virgin material.*

Examples of legitimate beneficial reuse include:

- Processing, cleaning, screening and size reducing glass to meet a specification for aggregates or sands in civil engineering applications such as pipe bedding, roads (in hot-mix base, binder or surface layers), mechanically stabilized earth, as landscape medium, etc. that meet Austin Department of Public Works specifications for these types of improvements.
- Processing, cleaning, screening and size reducing concrete to meet a specific specification for stone or aggregates, such as in Recycled Asphalt Pavement or other civil engineering applications, such as sidewalks, roads, parking lots, etc., that meet Austin Department of Public Works specifications for these types of improvements.
- Processing, cleaning, screening and size reducing scrap tires to utilize as playground mulch, in rubber-modified asphalt in roads (in hot-mix base, binder and surface layers), in septic fields or other drainage applications, etc.
- Processing, cleaning and pulverizing gypsum wallboard to land-apply as a soil amendment.

Definitions from Texas State solid waste rules to support beneficial reuse activities:

- (122) Recyclable material--A material that has been recovered or diverted from the nonhazardous waste stream for purposes of reuse, recycling, or reclamation, a substantial portion of which is consistently used in the manufacture of products that may otherwise be produced using raw or virgin materials. Recyclable material is not solid waste. However, recyclable material may become solid waste at such time, if any, as it is abandoned or disposed of rather than recycled, whereupon it will be solid waste with respect only to the party actually abandoning or disposing of the material.
- (4) Processed for recycling or processing for beneficial use--Material has been or is processed for recycling, or undergoes processing for beneficial reuse, if it has been subjected to activities including extraction or separation of component materials (such as the separation of commingled recyclable materials), cleaning, grinding, or other preparation at a recycling facility to make it amenable for subsequent recycling or beneficial reuse.
- (8) Beneficial reuse--Any agricultural, horticultural, reclamation, or similar use of compost as a soil amendment, mulch, or component of a medium for plant growth, when used in accordance with generally accepted practice and where applicable is in compliance with the final product standards established by this chapter. Simply offering a product for use does not constitute beneficial reuse. Beneficial reuse does not include placement in a disposal facility, use as daily cover in a disposal facility, or utilization for energy recovery.
- (48) Recyclable material--For purposes of this chapter, a recyclable material is a material that has been recovered or diverted from the solid waste stream for purposes of reuse, recycling, or reclamation, a substantial portion of which is consistently used in the manufacture of products which may otherwise be produced from raw or virgin materials. Recyclable material is not solid waste unless the material is deemed to be hazardous solid waste by the administrator of the United States Environmental Protection Agency, whereupon it shall be regulated accordingly unless it is otherwise exempted in whole or in part from regulation under the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Protection Act. If,

however, recyclable materials may become solid waste at such time, if any, as it is abandoned or disposed of rather than recycled, whereupon it will be solid waste with respect only to the party actually abandoning or disposing of the material.

***RECENT COUNCIL ACTIONS***

February 27<sup>th</sup> Council Meeting – City Council authorized execution of an emergency contract with BFI Waste Services of Texas, for emergency roll-off refuse container services in support of flood cleanup efforts in the Onion Creek area in an amount not to exceed \$75,768. Zero Waste Advisory Commission recommended for Council approval at the February ZWAC meeting.

**Staff Hires and Promotion Updates**

New employee	Promotions	Notes: Title/ Division
Thomas Fulmer		Financial Manager
Jerry Leyendecker		Temporary Associate
Richard Willis		Temporary Associate
Peter Decesare		Equipment Technician I
Tracey Jackson		Austin Resource Recovery Operator
Kristina Newman		Environmental Program Tech
Madelyn Morgan		Intern
Monica Edell		Intern
Sarah Puffer		Intern
Titus Alexander		Temporary Associate
Michael Morales		Temporary Associate
Jocabed Gutierrez		Administrative Specialist
Timmothy Hill		Technical Trainer
Adam Arriaga		Utility Account Specialist
Amanda Noble		Temporary Human Resources Assistant
Stephanie Rodriguez		Temporary Human Resources Assistant
Damien Bailey-Harris		Austin Resource Recovery Operator
	Kenneth Hicks	Environmental Program Tech
	Victoria Sanchez	Accounting Associate
	Jason McCombs	Planner Senior
	William White	Austin Resource Recovery Operator Specialist Senior
	David Black	Austin Resource Recovery Operator Specialist Senior
	Gregory Mitchell	Austin Resource Recovery Operator Specialist Senior
	Robert Williams	Austin Resource Recovery Crew Leader

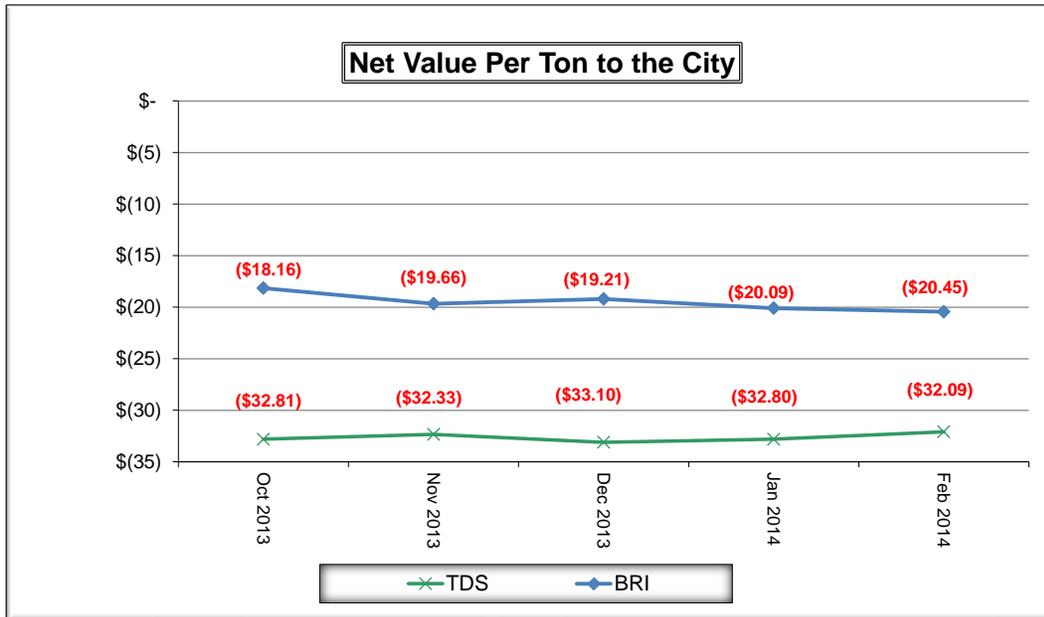
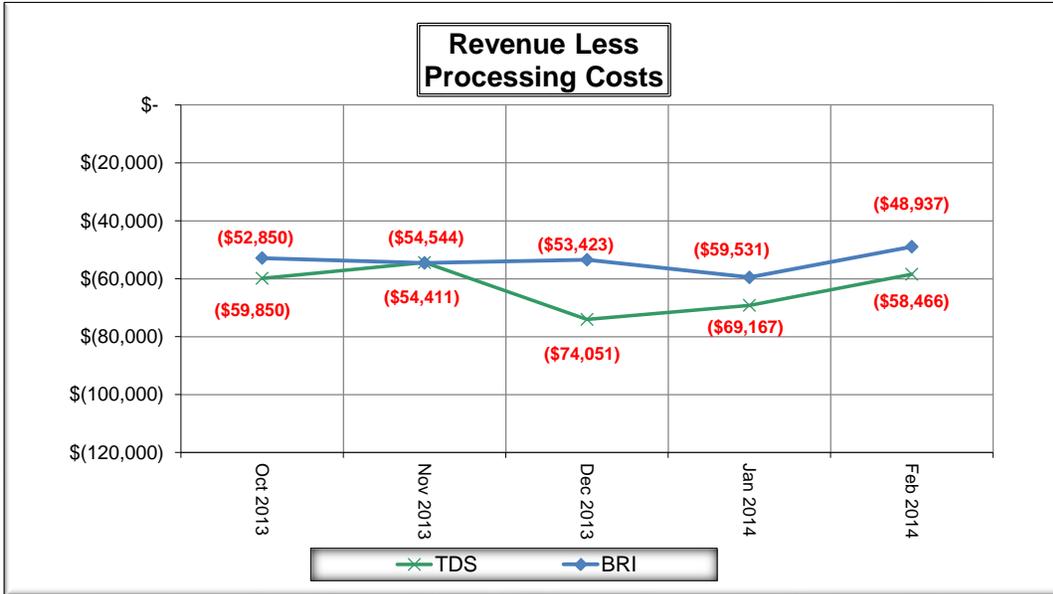
**Zero Waste Advisory Commission - April 9, 2014**  
**Single Stream Recycling Statistical Report**  
**FY 2013-14: October, 2013 - February, 2014**  
**Texas Disposal Systems (TDS) and Balcones Resources, Inc. (BRI)**

Month and Year	Contractor	Tons Delivered	Contractor Payments			Net Value to the City	Landfill Cost Avoidance	
			Revenue	Processing Cost	Net Amount Due/(Owed)	\$ per ton value	Cost Per Ton	Total
October 2013	TDS	1,824.24	\$108,623	\$168,473	(\$59,850)	(\$32.81)	\$21.01	\$38,327
	BRI	2,910.84	\$177,974	\$230,825	(\$52,850)	(\$18.16)	\$21.01	\$61,157
	<i>Total</i>	4,735.08	\$286,598	\$399,298	(\$112,701)			\$99,484
November 2013	TDS	1,682.84	\$99,569	\$153,980	(\$54,411)	(\$32.33)	\$21.01	\$35,356
	BRI	2,775.04	\$165,885	\$220,429	(\$54,544)	(\$19.66)	\$21.01	\$58,304
	<i>Total</i>	4,457.88	\$265,454	\$374,409	(\$108,955)			\$93,660
December 2013	TDS	2,237.24	\$130,657	\$204,707	(\$74,051)	(\$33.10)	\$21.01	\$47,004
	BRI	2,781.35	\$167,489	\$220,913	(\$53,423)	(\$19.21)	\$21.01	\$58,436
	<i>Total</i>	5,018.59	\$298,146	\$425,620	(\$127,474)			\$105,441
January 2014	TDS	2,108.75	\$123,783	\$192,951	(\$69,167)	(\$32.80)	\$21.01	\$44,305
	BRI	2,963.60	\$175,333	\$234,864	(\$59,531)	(\$20.09)	\$21.01	\$62,265
	<i>Total</i>	5,072.35	\$299,116	\$427,814	(\$128,698)			\$106,570
February 2014	TDS	1,821.99	\$108,246	\$166,712	(\$58,466)	(\$32.09)	\$21.01	\$38,280
	BRI	2,392.85	\$142,235	\$191,172	(\$48,937)	(\$20.45)	\$21.01	\$50,274
	<i>Total</i>	4,214.84	\$250,482	\$357,884	(\$107,403)			\$88,554
<b>FY 2013-14 Totals</b>		<b>23,499</b>	<b>\$1,399,795</b>	<b>\$1,985,026</b>	<b>(\$585,231)</b>			<b>\$493,709</b>

**Material Composition Percentages**

	Previous Audit		Current Audit	
	TDS	BRI	TDS	BRI
<b>Material</b>	<b>4/13/13</b>	<b>4/27/13</b>	<b>10/19/13</b>	<b>11/16/13</b>
ONP #8 (Old Newspaper)	16.14%	25.97%	17.56%	23.88%
OCC (Corrugated Cardboard)	8.42%	12.14%	13.49%	10.99%
Mixed Paper	20.17%	9.73%	15.59%	13.51%
Plastic Bottles - PETE	2.71%	3.21%	3.00%	3.25%
HDPE Natural	1.00%	0.62%	1.07%	0.83%
HDPE Color	0.83%	0.75%	0.94%	0.79%
Mixed Plastics 3-7	3.73%	1.85%	3.77%	2.16%
UBC (Used Beverage Cans)	1.21%	1.33%	1.21%	1.08%
Tin Cans	1.94%	1.86%	1.63%	1.37%
Scrap Metal	0.89%	0.72%	0.87%	0.70%
Glass	27.04%	27.99%	28.76%	28.89%
Residual - trash	15.92%	13.83%	12.11%	12.55%
<i>Total</i>	100.00%	100.00%	100.00%	100.00%

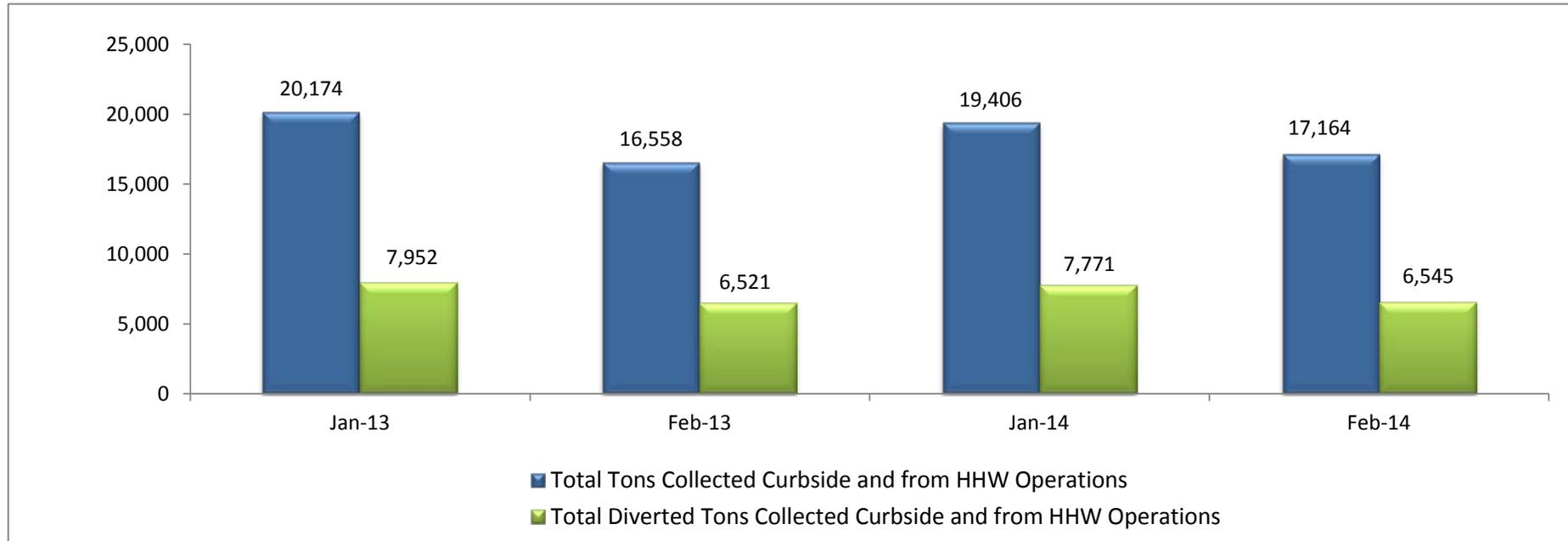
**Zero Waste Advisory Commission - February 12, 2014**  
**Single Stream Recycling Statistical Report**  
 FY 2013-14: October - December, 2013  
 Texas Disposal Systems (TDS) and Balcones Resources, Inc. (BRI)



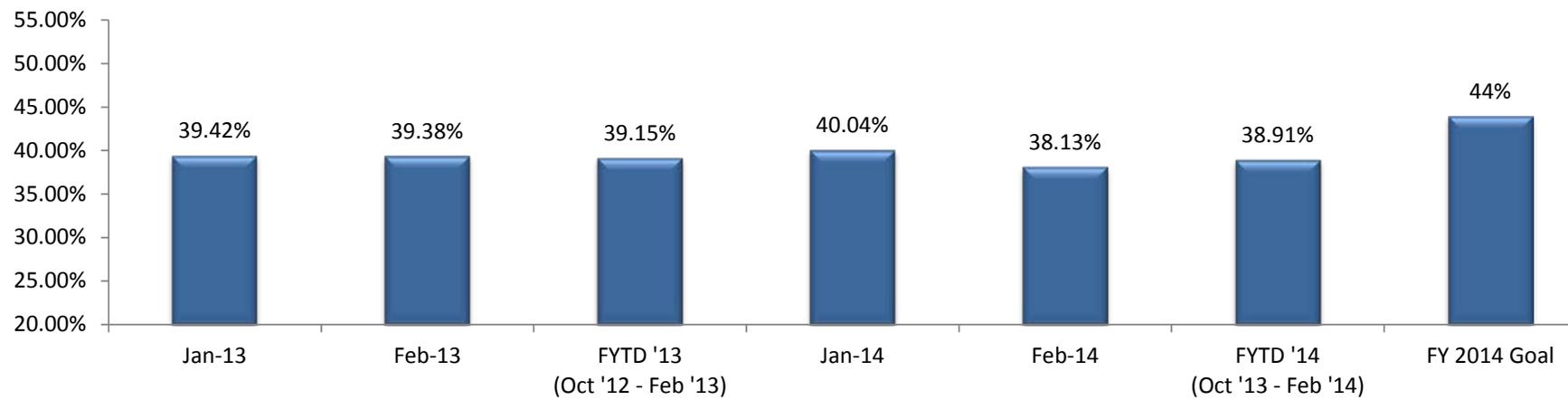
# Austin Resource Recovery Curbside Collection and HHW Operations

		LAST FISCAL YEAR				CURRENT FISCAL YEAR				
		FY 2013	FY 2013 <i>Goal</i>	Jan-13	Feb-13	FYTD '13 (Oct '12 - Feb '13)	Jan-14	Feb-14	FYTD '14 (Oct '13 - Feb '14)	FY 2014 <i>Goal</i>
Tons Disposed	Tons of curbside Garbage	124,183	127,000	11,526	9,193	51,896	11,076	9,571	51,466	123,000
	Tons of Curbside Bulk Disposed	8,500	6,600	672	814	3,165	525	1,025	3,561	7,000
	HHW Operations Tons Disposed	381	400	23	30	135	34	23	157	390
	<b>Total Disposed Tons Collected Curbside and from HHW Operations</b>	<b>133,064</b>	<b>134,000</b>	<b>12,221</b>	<b>10,037</b>	<b>55,196</b>	<b>11,635</b>	<b>10,619</b>	<b>55,184</b>	<b>130,390</b>
Tons Diverted	Tons of curbside recycling	53,702	62,500	5,045	3,936	22,577	4,998	4,182	23,278	64,000
	HHW Operations Tons recycled/reused	240	150	15	18	80	13	17	101	150
	Tons of Curbside Yard Trimmings	25,898	27,000	2,437	2,037	9,996	2,426	1,779	9,251	31,000
	Tons of Curbside Bulk Recycled	181	800	18	12	78	14	19	76	783
	Tons of Curbside Brush Collected	7,359	6,400	437	518	2,782	320	548	2,436	6,200
<b>Total Diverted Tons Collected Curbside and from HHW Operations</b>	<b>87,380</b>	<b>96,850</b>	<b>7,952</b>	<b>6,521</b>	<b>35,513</b>	<b>7,771</b>	<b>6,545</b>	<b>35,142</b>	<b>102,133</b>	
<b>Total Tons Collected Curbside and from HHW Operations</b>		<b>220,444</b>	<b>230,850</b>	<b>20,174</b>	<b>16,558</b>	<b>90,709</b>	<b>19,406</b>	<b>17,164</b>	<b>90,326</b>	<b>232,523</b>
<b>Percent of Waste Stream Diverted by Curbside and HHW Operations</b>		<b>39.64%</b>	<b>42%</b>	<b>39.42%</b>	<b>39.38%</b>	<b>39.15%</b>	<b>40.04%</b>	<b>38.13%</b>	<b>38.91%</b>	<b>44%</b>
<b>Pounds of Garbage collected per customer per pickup</b>		<b>25.53</b>	<b>26.03</b>	<b>28.52</b>	<b>22.87</b>	<b>n/a</b>	<b>27.14</b>	<b>23.48</b>	<b>n/a</b>	<b>24.64</b>
Number of Garbage customers		187,105	187,676	186,665	185,626	n/a	188,490	188,240	n/a	192,000
<b>Pounds of Recycled materials collected per customer per pickup (every other week)</b>		<b>22.25</b>	<b>25.62</b>	<b>25.16</b>	<b>19.74</b>	<b>n/a</b>	<b>24.82</b>	<b>20.80</b>	<b>n/a</b>	<b>25.64</b>
<b>Pounds of Yard Trimmings collected per customer per week</b>		<b>5.37</b>	<b>5.53</b>	<b>6.08</b>	<b>3.77</b>	<b>n/a</b>	<b>6.02</b>	<b>4.42</b>	<b>n/a</b>	<b>6.21</b>
Number of Recycling and Yard Trimmings customers		185,658	187,676	185,224	184,205	n/a	186,029	185,733	n/a	192,000

## Austin Resource Recovery Curbside Collection and HHW Operations



### Percent of Waste Stream Diverted by Curbside and HHW Operations



# Austin Resource Recovery Curbside Collection and HHW Operations

Reporting Status and Diversion Results for All Categories of Waste Generation						
Category of Waste Generation	FY2009-10 actual	FY2010-11 actual	FY2011-12 actual	FY2012-13 actual	FY2013-14 goal	FY2013-14 current
Residential Waste Diversion (city serviced accounts)	37.32%	38.57%	37.86%	39.64%	44.00%	38.91%
Commercial / Industrial Waste Diversion	information not available*					
Institutional Waste Diversion	information not available*					
	*Non-residential waste diversion to be inventoried in 2015					

